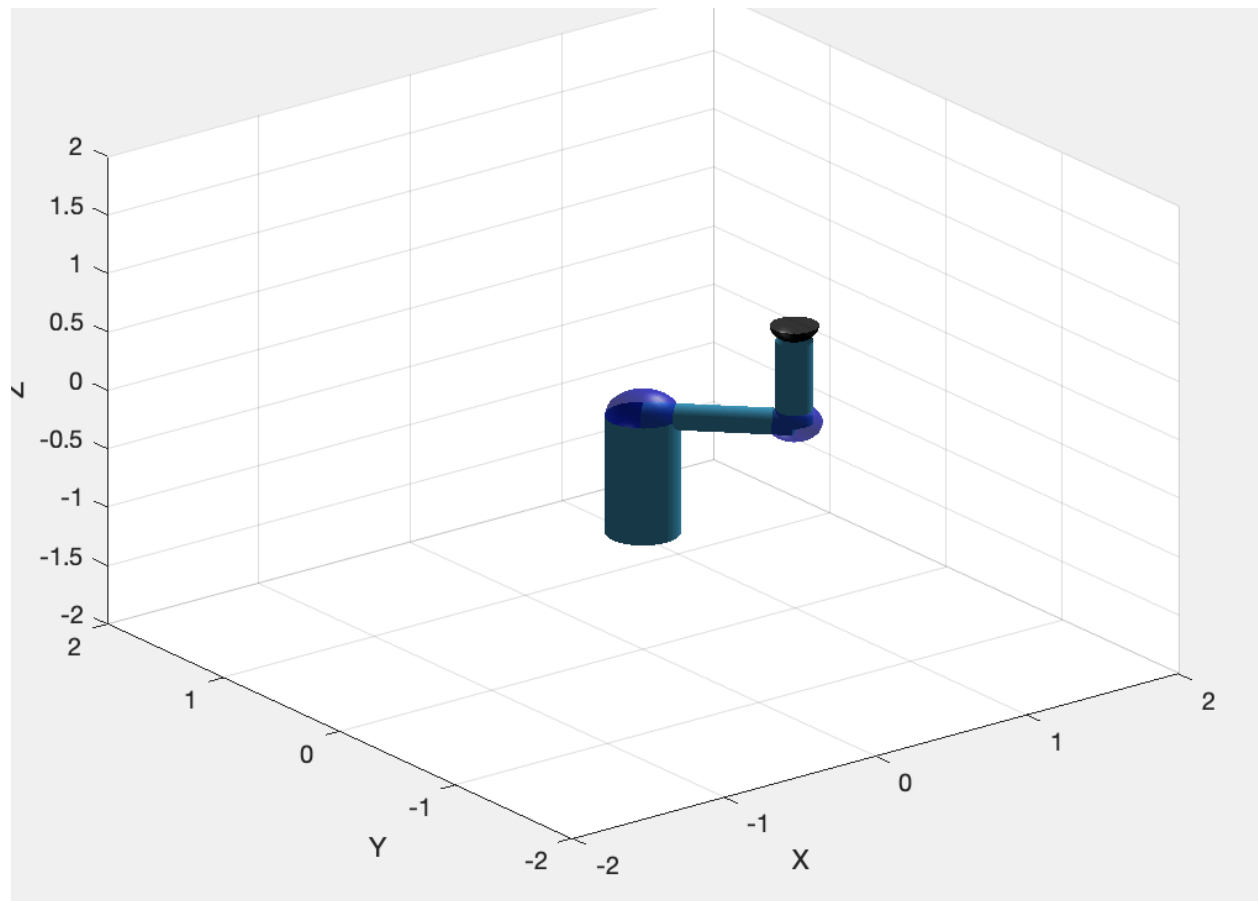


**Elbow is at  $\pi/2$  (orientation of the base joint does not matter)**



Rotational Angle:  $[0, \pi/2, -\pi/4]$

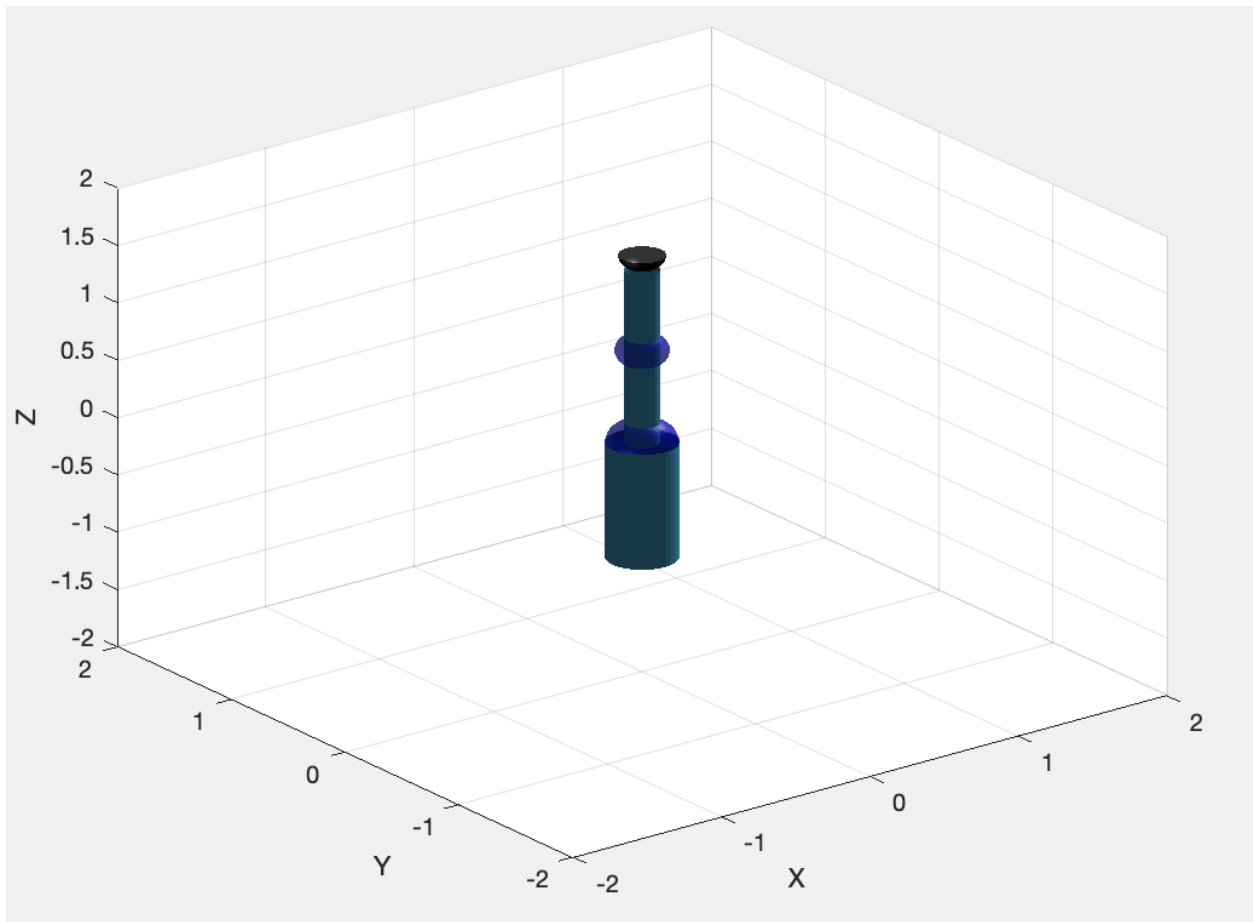
**Jacobian matrix:**

-0.4950	-0.4950	0.5657
0.4950	0.4950	0.5657
0.8000	0.0000	0

**Condition number:**

**2.4915**

**The whole arm is fully stretched upward in a straight line**



Angle:  $[\pi/2, \pi, \pi/2]$

**Jacobian matrix:**

-0.0000	0.0000	0.0000
-0.1000	0.7000	-0.0000
-0.0000	-0.0000	0

**Condition number:**

**8.8830e+15**

This configuration(The whole arm is fully stretched upward in a straight line)  
would give a singular matrix

Jacobian matrix:

-0.0000	-0.0000	0.0000
0.0000	0.0000	0.1000
-0.1000	0.7000	0

Condition number:  
7.2639e+15

Angle [pi,pi,pi] will also give a singular Jacobian matrix